

STATEMENT OF SUBSTANCE OF INTERVIEW

As indicated in the Interview Summary of September 9, 2005, a personal interview was conducted between Examiner Andy Rao and the Applicant's undersigned representative on September 9, 2005. Applicant notes that claims 1-24, and not 1-20 as indicated in the Interview Summary, are pending in the application.

The rejection of independent claims 1, 8 and 11 were discussed. The Examiner requested that Applicant submit remarks regarding the claimed "deciding device for selecting a correction method" as recited in claim 1, for the Examiner's further reconsideration. In addition, the Examiner indicated that further consideration will be given with respect to "the calculation device for calculating a brightness alteration amount..." as recited in claim 11.

The Examiner also indicated that claim 1 would be deemed allowable if amended to include the subject matter of claim 3.

Additionally, the Examiner indicated that the subject matter of claim 8 and its dependent claims are allowable.

It is respectfully submitted that the instant STATEMENT OF SUBSTANCE OF INTERVIEW complies with the requirements of 37 C.F.R. §§1.2 and 1.133 and MPEP §713.04.

REMARKS

This Response, submitted in reply to the Office Action dated July 13, 2005, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-24 are all the claims pending in the application.

I. Preliminary Matter

Applicant respectfully requests that the Examiner approve the drawings filed September 6, 2000, by marking acceptance of the drawings in the next Office Action.

II. Rejection of claims 1-7, 11, 13-15, 17-18, 20 and 21 under 35 U.S.C. § 102

Claims 1-7, 11, 13-15, 17-18, 20 and 21 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Edgar (U.S. Patent No. 5,266,805).

Claims 1, 13, and 18

The Examiner asserts that Edgar col. 5, lines 50-55 teaches “a deciding device for selecting a correction method from among a plurality of types of correction methods for correcting a defect portion,” as recited in claim 1.

The respective column and lines cited by the Examiner disclose that the system and method described in the Edgar patent may be used in conjunction with fill-in algorithms to automatically render an imperfection effectively invisible because their locations and boundaries are now more precisely identified, as a result of the system and method disclosed in Edgar, without unnecessarily losing image detail.

However, there is no indication of a **deciding device** to select a correction method, nor is there any indication of a plurality of types of correction methods to be selected at a given time. In particular, although Edgar discloses that fill-in algorithms can be used in conjunction with the

system and method of Edgar, there is no indication that **a deciding device** selects the fill-in algorithm to be used. As described in Edgar, col. 12, lines 36-40, and as discussed during the interview of September 9, 2005, Edgar appears to disclose an interpolate box 126 for performing interpolation and a separate divide 124 for adjusting pixel values. Therefore, assuming *arguendo*, a correction method is selected, **a deciding device** does not select a correction method, as recited in claim 1.

The Examiner further asserts that the fill-in algorithms are applicable to imperfections caused by visible versus non-visible transmissivity (col. 5, lines 60-65), CCD characteristics (col. 10, lines 45-57), and dye characteristics (col. 10, lines 10-35), and depending on the type of defect map generated, the choice of a plurality of method applications is addressed by Edgar.

The respective column and lines cited by the Examiner disclose the application of a color wheel to separate the information comprising an image 14 and imperfections 16 into a plurality of individual records, the application of a CCD device, and the use of a less diffuse illumination source. Contrary to the Examiner's assertions, there is no suggestion of selection of a corrective measure as it appears each correction becomes individually calculated.

In response to Applicant's argument that Edgar does not disclose "deciding a range of application of each of at least two correction methods correcting a defect portion," the Examiner asserts that thresholding the intensity values generates values on the decision tree to generate the application of one or more correction methods, citing col. 8, line 8 and lines 50-67 and col. 9, lines 1-20, in support.

The respective column and lines cited by the Examiner disclose that a component of a program 58 may be control software necessary for generating sequentially the desired red, green, blue and infrared images. In addition, if an infrared pixel does not equal a predetermined value, the pixels associated with this infrared pixel and corresponding location in the frame 10 are considered to be obscured by imperfection. An appropriate fill-in routine can then be executed to replace the respective red, green, blue and infrared pixel values. Although the intensity values of the pixels are compared to a predetermined threshold, there is no indication regarding a range of each of at least two correction methods (fill-in algorithms, as cited by the Examiner) correcting a defect portion.

For at least the above reasons, claim 1 and its dependent claims should be deemed allowable. Since claims 13 and 18 recite similar elements, claims 13 and 18 should be deemed allowable for at least the same reasons.

Claim 21

With regard to claim 21, this claim describes a correction via vignetting where image information is corrected by reducing high frequency components of spatial frequency of a defect portion and adjacent areas. The Examiner cites the general use of light-shielding, pixel correction for uneven lighting and color filtering to teach this aspect of the claim. Such general teachings do not disclose or suggest the high frequency components of spatial frequency and adjacent area are processed, as described by claim 21. Consequently, claim 21 should be deemed allowable.

Claims 11, 17 and 20

In response to Applicant's argument that Edgar does not disclose "a calculation device for calculating a brightness alteration amount for correcting a defect portion in the image based on an amount of transmitted or reflected non-visible light in an area adjacent to the defect portion when light is irradiated onto the image recording material, and a difference in the refractive indexes of visible light and non-visible light in the image recording material," the Examiner asserts that Edgar inherently teaches this aspect of the claim. In particular, the Examiner states that "the imperfections of all three visible and the infrared images are used in a subtractive process to generate a final defect map. The subtraction process inherently generates a 'difference image which is due [to] the different refractive indexes of visible and non-visible light.'"

However, assuming *arguendo*, Edgar inherently teaches a difference in the refractive indexes of visible light and non-visible light in the image recording material, the mere mapping of a defective image does not teach or suggest **calculating a brightness alteration amount** for correcting a defect portion in the image based on an amount of transmitted or reflected non-visible light in an area adjacent to the defect portion when light is irradiated onto the image recording material. In particular, Edgar does not appear to be directed to brightness, let alone calculating a brightness alteration amount for correcting a defect. Therefore, Edgar does not teach all of the limitations of claim 11.

For at least the above reasons, claim 11 should be deemed allowable. Since claims 17 and 20 recite similar elements, claims 17 and 20 should also be deemed allowable for at least the same reasons.

III. Rejection of claims 8-10, 16, 19 and 22-24 under 35 U.S.C. § 102

Claims 8-10, 16, 19 and 22-24 were previously rejected under 35 U.S.C. § 102(b) as being anticipated by Hiramatsu (U.S. Patent No. 4,933,983). However, in the Interview Summary of September 9, 2005, the Examiner indicated that claim 8 and its dependent claims are allowable. Further, Applicant submits that claims 16 and 19 recite elements similar to claim 8, therefore Applicant requests that claims 16 and 19 also be deemed allowable.

IV. Claim Rejections under 35 U.S.C. § 103

Claim 12 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Edgar in view of Tung (U.S. Patent No. 3,758,193). Claim 12 should be deemed allowable by virtue of its dependency to claim 1 for the reasons set forth above. Moreover, Tung does not cure the deficiencies of Edgar.

In response to Applicant's argument that Tung does not disclose extracting high frequency components as recited in claim 12, the Examiner asserts that Tung is being cited only for disclosing that a calculation for high frequency is performed. In addition, the Examiner's asserts that col. 10, lines 60-67 and col. 11, lines 1-20 of Edgar disclose the manipulation of high frequency components for imperfection generation.

However, in determining a motivation for obviousness, the Examiner must look at the references as a whole, as to what they would teach to one of ordinary skill in the art. Tung does not teach or suggest extracting high frequency components. In addition, there is no teaching or suggestion in Tung that a feature amount is calculated based on “one of the type of image recording material and by calculating a ratio of a value obtained when high frequency components (which the Examiner asserts is disclosed in Tung) are extracted from a change in the amount of transmitted or reflected non-visible light in an area adjacent to the defect portion when non-visible light is irradiated onto the image recording material and a value obtained when high frequency components are extracted from a change in an amount of transmitted or reflected visible light in an area adjacent to the defect portion when visible light is irradiated onto the image recording material.”

Therefore, assuming one of skill would be motivated to combine the teachings of Tung with Edgar, the combination would still fail to disclose all the claimed elements. In addition, although Edgar discloses softening an image and possibly requiring a software boost of high spatial frequencies to renormalize it to the visible acutance, there is no teaching or suggestion of extracting high frequency components as recited in claim 12.

For at least the above reasons, claim 12 should be deemed allowable.

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 10/656,131


Attorney Docket No. Q59329

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


Ruthleen E. Uy
Registration No. 51,361

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: October 7, 2005